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## PATENT SPECIFICATION

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Means for the surface treatment of cosmetic products or of the surface of the human body  
treated with cosmetic products

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It is known that in particular for cosmetic products, a pleasant appearance is a significant factor in the retail value. In the case of solid or semi-solid preparations, said appearance is essentially related to the surface. However, the behavior of the surface or the more or less film-like distribution of the preparations on the substrates corresponding to the surface, such as the skin, provide other important clues as to the suitability of the preparation, its favorable properties, shelf-life, particularly easy handling, etc. Thus, significant technical importance is attributed to the appropriate surface treatment of cosmetic products, be it the finished product or a preparation applied in form of a film. It is insignificant whether the term used in this context is tempering or improvement, or a protective layer or -film.

Various means and methods have become known which aim to attain this objective. For example, the surface of lipsticks, which slightly smears when touched or exhibits liquid separations at higher temperatures (for example during summer) was provided with a lacquer film. This has the disadvantage, however, that the lacquer film peels off easily, while on the other hand, it is not abraded as easily as the lipstick compound, which means that the film remains as a coat and then complicates the handling.

Artificially created surfaces of cosmetic preparations, such as those of powdered crème and powdered milk or the like, have little stability on human skin. Humidity, rain and perspiration easily wash off the surface layers of the powder. To date, it has not become known how to solve this problem without a negative impact on the

appearance of the surface layer of the powder or its subsequent removal by washing.

The objective to be attained by the invention are the means that, when used in the generally known manner, remedy all of the problems related to the surface. Experiments have shown that specific silicon-organic compounds listed below either individually or in combination, if necessary with the help of an organic solvent, when applied to the surface of cosmetic preparations by soaking, spraying, dabbing or the like, improve and temper said surface and make it more resistant, stable or the like without any negative effect on the original properties of the preparations or their spreading on the surface of the human body. Suitable compounds are silicones, organosiliconester, alkoxysilanes, aroxy-silanes and alkylhalogensilanes dissolved in aliphatic alcohols such as isopropyl alcohol, for example.

#### Examples:

1. 75 parts-by-volume sodiummethyl-silicones, 20 parts-by-volume water, 5 parts-by-volume isopropylalcohol (to increase the wetting out property) are mixed. Lipsticks, soap bars, or cleansing-active synthetic substances or similarly formed cosmetic structures may be dipped into said solution or the products are sprayed with said solution.

2. 7.5 parts-by-weight methylsilicon-triphosphate, 7.5 parts-by-weight methyl-triacetoxysilane are dissolved in 35 parts-by-weight isopropylalcohol. The application is the same as in Example 1. If the isopropylalcohol part is increased by approximately half, said solution is suitable to render powder

layers more resistant against water and mechanical stresses.

3. 5 parts-by-volume dimethyldichlorosilane, 5 parts-by-volume dimethylacetoxysilane, 90 parts-by-volume isopropylalcohol are mixed. The application is the same as in Example 1. The individual solutions or mixtures may also be used successively in different cases. For example, a permanent sheen on the surface of lipsticks can be obtained if the lipstick is treated first with a means according to Example 1 and after drying with a solution according to Example 2. Preferably, the treatment means can be adapted to the various lipstick- and powder compounds by changing the concentration.

#### PATENT CLAIMS:

1. Means for the surface treatment of cosmetic products or the surface of the human body treated with cosmetic products, characterized in that in addition to organic solvents, such as alcohols, for example, it contains silicones or organo-siliconester and/or alkoxysilanes and/or aroxysilanes and/or alkylhalogensilanes.

2. Means in accordance with Claim 1, characterized in that in addition to an aliphatic monovalent alcohol, it contains sodiummethylsiliconate in aqueous solution.

3. Means in accordance with Claim 1, characterized in that it contains methylsiliconetriphosphate dissolved in an aliphatic monovalent alcohol.

4. Means in accordance with Claim 1, characterized in that it contains methyltriacetoxysilane, dissolved in a monovalent aliphatic alcohol.

5. Means in accordance with Claim 1, characterized in that it contains dimethyldichlorsilane, dissolved in an aliphatic monovalent alcohol.

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#### Printed matters taken into consideration:

German Patent specifications No. 696 145, 559 757;

British patent specification No. 13 104 (from the year 1894);

Austrian patent specification No. 136 023;

Publication "Kunststoffe" [Plastics], Volume 12, 1952, No. 10, pages 311 to 314

Publication "Drug and Cosmetic Industry", 1953, 616 and 617, 688 to 691;

Publication "Manufacturing Chemist", 1953, 166 and 167

Publication "Parfumerie moderne", 1952, 52.